## Before the Federal Communications Commission Washington, D.C. 20554

In the Matter of	)	
Amendment of Section 90.20(e)(6) of the	)	WT Docket No. 06-142
Commission's Rules	)	RM-11135

#### NOTICE OF PROPOSED RULE MAKING

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By the Commission:

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#### I. INTRODUCTION AND EXECUTIVE SUMMARY

1. In this *Notice of Proposed Rule Making (NPRM)*, we address a petition for rulemaking filed by LoJack Corporation (LoJack) on October 25, 2004. LoJack seeks to modify Section 90.20(e)(6) of the Commission's Rules<sup>2</sup> to accommodate its future narrowband operations on frequency 173.075 MHz, and to permit other services in addition to stolen vehicle recovery systems (SVRS). For the reasons

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<sup>&</sup>lt;sup>1</sup> LoJack Corporation Petition for Rulemaking, RM-11135 (filed Oct. 25, 2004) (Petition).

<sup>&</sup>lt;sup>2</sup> See 47 C.F.R. § 90.20(e)(6).

explained below, it would appear that it is reasonable to revise Section 90.20(e)(6) of the Commission's Rules to permit increased mobile output power, to permit digital emissions in addition to the analog emissions currently authorized by the Rules, and to relax the limitations on duty cycles. We seek comment on these matters and whether we should authorize mobile transceivers by rule, rather than continue to follow our current practice of licensing mobiles together with their respective individual base stations. Finally, we inquire into the merits of broadening the scope of Section 90.20(e)(6) to permit the use of frequency 173.075 MHz for other than SVRS operations. We initiate this rulemaking proceeding because we believe that certain rule changes could enhance SVRS operations and assist in the migration of the related communications to narrowband technology, and otherwise would further the public interest.

#### II. BACKGROUND

- 2. In 1989, the Commission designated frequency 173.075 MHz for use by SVRS licensees<sup>3</sup> on a shared basis with the Federal Government.<sup>4</sup> LoJack has developed and operates a stolen vehicle recovery network in cooperation with state and local police departments across the Nation.<sup>5</sup> According to LoJack, its system has been deployed in twenty-two states and the District of Columbia, has been installed in more than three million vehicles, and has assisted in the recovery of more than 100,000 vehicles.<sup>6</sup> The LoJack system also is used in twenty-four other countries.<sup>7</sup> Although the Commission licenses SVRS operations on frequency 173.075 MHz on a shared, non-exclusive basis, LoJack currently is the only SVRS operator in the United States.
- 3. Vehicles are fitted with a vehicle location unit (VLU) that remains dormant until an owner reports a vehicle theft.<sup>8</sup> Once a stolen vehicle report is received by police, the officials send an electronic message to a central law enforcement computer, which causes a network of radio base stations

<sup>&</sup>lt;sup>3</sup> See Amendment of Parts 2 and 90 of the Commission's Rules to provide for stolen vehicle recovery systems, *Report and Order*, Gen. Docket No. 88-566, 4 FCC Rcd 7558, 7558 ¶ 1 (1989) (*First SVRS Report and Order*). Earlier, on March 10, 1986, experimental authority was granted to LoJack and the Massachusetts Department of Public Safety (Department) to conduct a market test in Massachusetts of a stolen vehicle recovery system. Prior to that time, the Department had been operating this system experimentally under the auspices of the Federal Bureau of Investigation of the U.S. Department of Justice. On October 18, 1988, the Commission granted LoJack authority to expand its experiment to the state of Florida. *See* Amendment of Parts 2 and 90 of the Commission's Rules to provide for stolen vehicle recovery systems, *Notice of Proposed Rulemaking*, Gen. Docket No. 88-566, 3 FCC Rcd 7195, 7195 ¶ 2 (1988) (*SVRS NPRM*).

<sup>&</sup>lt;sup>4</sup> The 162.0125-173.2 MHz band is allocated on a primary basis to the Federal Government for fixed and mobile operations. Non-Federal Government SVRS operations may also be authorized on frequency 173.075 MHz on a primary basis. *See* 47 C.F.R. § 2.106 n.US312.

<sup>&</sup>lt;sup>5</sup> See Petition at 3.

<sup>&</sup>lt;sup>6</sup> *Id*. at 4.

<sup>&</sup>lt;sup>7</sup> *Id.* at 3.

<sup>&</sup>lt;sup>8</sup> See Amendment of Section 90.20(e)(6) of the Commission's Rules to Revise the Authorized Duty Cycle on 173.075 MHz, Report and Order, WT Docket No. 01-97, 17 FCC Rcd 16938, 16940 ¶ 4 (2002) (Second SVRS Report and Order); see also Petition at 4.

licensed to the police to broadcast a message that instructs the VLU to begin transmitting a brief "tracking" message. Activation messages are transmitted by these base stations every fifteen minutes for the first two hours, then once an hour thereafter until the vehicle is recovered or thirty days have passed, whichever is sooner. The tracking message contains a unique reply code that is received by vehicle tracking units (VTUs) located in law enforcement vehicles. Police identify the vehicle make, model and registration from the reply code, and then use that information to track and recover the stolen vehicle. It

- Section 90.20(e)(6) of the Commission's Rules establishes the requirements for SVRS operations. SVRS systems may be operated only to recover stolen vehicles and not for any other purpose. The rule limits mobile transmitters to 2.5 watts power output, and base station transmitters to 300 watts effective radiated power (ERP). Base station transmissions are limited to a total of one second every minute. Transmissions from mobile units are routinely limited to 200 milliseconds every ten seconds, and to 200 milliseconds every second during periods that a vehicle is being tracked actively (the 200 milliseconds cycle). As revised in 2002, Section 90.20(e)(6) of the Commission's Rules also permits an alternative duty cycle to the 200 milliseconds cycle, which enables SVRS operations to incorporate an early warning feature that minimizes lag time and, thus, assists in the expeditious recovery of a stolen vehicle. Specifically, VLU operations may be conducted with a duty cycle of 1800 milliseconds every 300 seconds (the 1800 milliseconds cycle) with a maximum of six messages in any thirty-minute period. Transmissions from base stations must be limited to a total time of one second every minute. LoJack currently utilizes the 1800 milliseconds cycle to facilitate operation of its "Early Warning Detector" (EWD). 12 When activated, the EWD detects external movements of the vehicle or determines that the vehicle has been started without use of a key and, thereupon, instructs the VLU to begin transmitting a brief periodic tracking message. 13 The tracking message contains a unique reply code, which is nearly instantaneously received by the VTUs installed in law enforcement vehicles. The nearest base station processes and forwards the message to the LoJack central control center, whereupon LoJack personnel immediately alert the car owner that the vehicle is possibly being stolen.
- 5. LoJack is required to migrate its operations from 20 kHz bandwidth to 12.5 kHz by 2019.<sup>14</sup> In conjunction with the redesign of its system to comply with the narrowbanding requirements, LoJack, on October 25, 2004, filed its Petition for Rulemaking (Petition), which seeks certain rule changes to assist in transitioning its system to narrowband operations, and to permit greater technical and

<sup>&</sup>lt;sup>9</sup> See Petition at 4.

<sup>&</sup>lt;sup>10</sup> *Id*.

<sup>11</sup> IJ

 $<sup>^{12}</sup>$  See Second SVRS Report and Order, 17 FCC Rcd at 16942-44  $\P\P$  9-11.

<sup>&</sup>lt;sup>13</sup> *Id.* at 16940-43 ¶¶ 5-9.

<sup>&</sup>lt;sup>14</sup> See Amendment of Parts 2 and 90 of the Commission's Rules to Provide for Narrowband Private Land Mobile Radio Channels in the 150.05-150.8 MHz, 162-174 MHz, and 406.1-420 MHz Bands that are Allocated for Federal Government Use, *Report and Order*, ET Docket No. 04-243, 20 FCC Rcd 5793 (2005); *Erratum*, 20 FCC Rcd 9882 (OET 2005).

operational flexibility for SVRS operations generally. The Petition was then placed on *Public Notice*. <sup>15</sup> More than one hundred comments were filed in response to the Petition. <sup>16</sup>

#### II. DISCUSSION

- 6. LoJack seeks amendment of Section 90.20(e)(6) of the Rules in order to modify the technical requirements of SVRS operations and broaden the scope of services offered on frequency 173.075 MHz. LoJack submits that many of its requested rule changes are necessary due to the transition of the SVRS frequency (173.075 MHz) from wideband to narrowband operations. According to LoJack, it will need to expend significant resources to redesign its SVRS operations for narrowband use. Specifically, LoJack indicates that it will need to redesign and redeploy its RF infrastructure and supporting software. As part of this process, LoJack submits that its technicians and field engineers will need to travel throughout the country in order to install equipment that will upgrade 11,000 VTUs, 125 base stations, and 125 uplink receivers. LoJack estimates that even after this process is complete, which it expects to take four years, there will remain more than three million wideband VLUs in consumer vehicles that will require support for an additional ten years. Thus, LoJack submits, it will need to operate parallel wideband and narrowband systems during this ten-year transition period.
- 7. In order to effectuate its plans to redesign and redeploy its SVRS facilities, LoJack specifically requests that Section 90.20(e)(6) of the Rules be amended to: (1) increase maximum base station ERP from 300 watts to 500 watts, and VLU output power from 2.5 watts to 5 watts, to compensate for the reduced range of narrowband channels; (2) permit use of digitally modulated emissions, in addition to the modulation schemes already specified in the Commission's Rules; (3) eliminate limitations on duty cycles to enable parallel wideband and narrowband operations and the provision of additional public safety and security services; and (4) eliminate the requirement of Channel 7 interference studies. In addition to these requested technical changes, LoJack requests that the Commission license mobile transceivers by rule, thus permitting nationwide activation of the VLUs by mobile telephony transmissions, and modify Section 90.20(e)(6) to expand the scope of services that may be offered on frequency 173.075 MHz.<sup>21</sup>

<sup>19</sup> *Id*.

<sup>20</sup> Id.

<sup>21</sup> *Id.* at 2.

<sup>&</sup>lt;sup>15</sup> See Public Notice, Petition for Rulemaking Filed, Consumer & Governmental Affairs Bureau Reference Information Center, Report No. 2686 (rel. Jan. 5, 2005).

<sup>&</sup>lt;sup>16</sup> For a list of parties commenting in response to the *Public Notice*, see Appendix C.

<sup>&</sup>lt;sup>17</sup> See Petition at 1, 5.

<sup>&</sup>lt;sup>18</sup> *Id*.

- 8. With the exception of LoJack and Motorola, Inc. (Motorola), comments were filed by local government entities, mostly police departments.<sup>22</sup> All commenters support the requested technical rule changes and expansion of the scope of services offered on frequency 173.075 MHz.<sup>23</sup> A number of local police departments, such as the Pasadena Police Department, Fontana Police Department and Denham Springs Police Department, indicate that they would use and benefit from LoJack's proposed new services by being able to obtain the position of a stolen vehicle more quickly and, thereby, swiftly dispatching a tracker vehicle to the immediate area and recovering the stolen vehicle.<sup>24</sup>
- 9. As set forth below, it would appear that the record warrants amendment of Section 90.20(e)(6) to incorporate technical modifications that will enhance SVRS operations during the transition to narrowband technology. Additionally, we seek comment on changing the current licensing scheme for VLUs in order to permit more widespread use of SVRS. Although we are cautious about the implications of expanding the scope of services offered on frequency 173.075 MHz, notably because it is shared with the Federal Government, we will also consider whether such expansion would be in the public interest.
- 10. <u>Maximum Base Station ERP and VLU Output Power</u>. LoJack is seeking increases in the permissible base station ERP from 300 watts to 500 watts, and output power for mobile transceivers from 2.5 watts to 5 watts. <sup>25</sup> It indicates that the increases are needed because the required reduction in the bandwidth of the 173.075 MHz frequency will reduce the range of both the base station and the mobile transceiver (*i.e.*, VLU). LoJack asserts that it seeks to ensure that law enforcement licensees maintain their present coverage and are not required to deploy additional future facilities to maintain the same coverage that exists currently.<sup>26</sup>
- 11. LoJack asserts that the maximum power limit for both base stations and VLUs should be doubled, *i.e.*, increased by 3 dB to overcome an asserted 2.2 dB degradation in base station performance and a 3 dB degradation in VLU performance as a consequence of narrowbanding.<sup>27</sup> However, it has not shown how it arrived at those asserted degradation values. We thus are unable to conclude that the

- Id.

<sup>&</sup>lt;sup>22</sup> Motorola agrees that the proposed technical changes are in the public interest and would serve to further the Commission's goals of encouraging efficient use of spectrum and promoting advanced technology. Motorola does not anticipate that any of the requested technical rule changes will cause harmful interference to Federal users on the frequencies adjacent to frequency 173.075 MHz. *See* Motorola Comments at 2-3.

<sup>&</sup>lt;sup>23</sup> See, e.g., Motorola Comments at 2-3; Colorado Comments at 1; Douglas County Comments at 1; City of Lakewood Comments at 1; Pasadena Comments at 1; Piscataway Comments at 1; Denham Springs Comments at 1; Madera County Comments at 1; City of Taft Comments at 1; Georgia Comments at 1.

<sup>&</sup>lt;sup>24</sup> See, e.g., Fontana Comments at 2; Henderson Comments at 2; San Diego County Comments at 1; Wheat Ridge Comments at 2; Denham Comments at 1; Douglas Comments at 1; Georgia Comments at 2; Lakewood Comments at 2; Pasadena Comments at 1-2.

<sup>&</sup>lt;sup>25</sup> See Petition at 2, 8.

 $<sup>^{26}</sup>$  Id

<sup>&</sup>lt;sup>27</sup> An increase or decrease in power, expressed in Decibels (dB) may be converted to a power ratio, by ratio  $_{power} = 10^{\text{ (dB/10)}}$ . Therefore, 3 dB = the power ratio  $10^{(3/10)} = 10^{0.3} = 2$ , *i.e.*, a doubling of power. 2.2 dB represents a forty percent degradation.

requested doubling (3 dB) of the maximum power limit is necessary to compensate for the degradation, if any, that would occur when the LoJack system is narrowbanded. Moreover, LoJack has not demonstrated the degree, if any, to which the requested increase in maximum power limits would also increase potential interference to the reception of Channel 7 television stations.

- 12. Intermittent transmissions from the VLUs, which operate with antenna elevations and power levels significantly lower than the base stations, and are generally transient, have inherently less interference potential. Therefore any interference resulting from increasing the maximum power limit for VLUs from 2.5 watts to 5 watts, appears, at worst, *de minimis*. The interference potential of base stations, however, is significantly greater. They operate at much higher powers, much higher antenna elevations and are stationary, rather than transient. We thus are concerned about the increase an interference potential to the reception of Channel 7 television stations should the maximum power limit for base stations be doubled as LoJack requests.
- 13. Accordingly, we request comments that offer definitive technical justification for the requested increase in base station ERP. Such technical justification must show the degree, if any, that narrowband operation would degrade the performance of LoJack's system and the calculations underlying the degradation assessment. In addition, commenting parties supporting an increase in base station power will need to explain how such an increase would not unreasonably increase the potential for the base stations to interfere with television Channel 7 analog and digital reception. However, given the lower potential for VLU's to cause interference to TV Channel 7 reception, we seek comment on increasing the maximum VLU power limit from 2.5 watts to 5 watts.<sup>29</sup>
- 14. <u>Use of Digitally Modulated Emissions</u>. Section 90.20(e)(6) currently limits SVRS operations to F1D or F2D emissions,<sup>30</sup> both of which are analog emissions.<sup>31</sup> The limitation reflects LoJack's original 1988 proposal to the Commission.<sup>32</sup> LoJack seeks to eliminate the limitation on emissions allowed on the SVRS frequency, so that it can use either analog or digital emissions, as appropriate, in order to take advantage of technological developments that have occurred since the LoJack system was first implemented.<sup>33</sup> LoJack indicates that the additional flexibility and efficiencies that

<sup>&</sup>lt;sup>28</sup> As noted above, the VLUs transmit only when they are activated by public safety officials, and then with a limited duty cycle. Moreover, in most instances the VLUs will be in motion and thus interference, if any, to a Channel 7 television viewer would occur, briefly only when the VLU is in the near vicinity of the viewer's location. *See Second SVRS Report and Order*, 17 FCC Rcd at 16942-44 ¶¶ 9-14 (indicating potential to cause interference to TV Channel 7 reception is from the LoJack base stations and not the mobile transceivers).

<sup>&</sup>lt;sup>29</sup> Commenters should address the potential for VLUs to cause interference to TV Channel 7 reception, and should take into account the proposal, *infra* at paras. 25-26, to expand the permissible use of frequency 173.075 MHz beyond the recovery of stolen vehicles.

<sup>&</sup>lt;sup>30</sup> See 47 C.F.R. § 90.20(e)(6).

Emissions are designated by an alphanumeric code that indicates the type of modulation of the main carrier, nature of the signal(s) modulating the main carrier, and the type of information to be transmitted. *See* 47 C.F.R. § 2.201(b). F1D and F2D are types of frequency modulated telemetry emissions. *See* 47 C.F.R. § 2.201(e).

 $<sup>^{32}</sup>$  See SVRS NPRM, 3 FCC Rcd at 7195-96  $\P\P$  4, 14.

<sup>&</sup>lt;sup>33</sup> See Petition at 8.

digital emissions can provide could allow LoJack to compensate for the reduced data transmission capacity contained in the planned narrower band channel.<sup>34</sup>

- 15. It appears that the use of additional emissions may provide increased flexibility to LoJack during the redesign of its system as it transitions to narrowband operation. No commenting party specifically mentioned LoJack's proposal to expand the number of emission designators that could be used by SVRS operators. We thus encourage parties to express their views on the use of additional emission designators on the SVRS frequency in their comments in response to this *NPRM*. In particular, commenters should address whether it would be more appropriate to add specific emission designators to the rule, or to simply eliminate any restriction on permissible emission designators.
- Limitations on Duty Cycles. LoJack seeks to eliminate all limitations on SVRS duty 16. cycles currently contained in the Commission's rules.<sup>35</sup> The duty cycle for base stations is defined as limiting the base station to transmitting for no more than one second for every minute. As explained above, the duty cycle for VLUs is defined as limiting the transmitter to transmitting no more than 200 milliseconds for every ten seconds, except when the vehicle is being actively tracked and then the mobile unit is permitted to transmit for 200 milliseconds every second; alternatively, operations may be conducted with a duty cycle of 1800 milliseconds every 300 seconds, with a maximum of six messages in any thirty-minute period. <sup>36</sup> As LoJack acknowledges, <sup>37</sup> the Commission decided in 2002 not to grant a similar request to eliminate the duty cycle restrictions, based primarily on a concern over potential interference to TV Channel 7 reception and a perceived need to keep the band accessible to Federal Government users.<sup>38</sup> However, LoJack claims that since the time it initially requested elimination of the duty cycle restrictions, the public interest benefits warranting elimination of the duty cycle restrictions have increased, while the concerns that the Commission expressed have diminished.<sup>39</sup> Even assuming this to be the case, we still must ensure that the frequency is available for potential Federal Government use. 40 Therefore, we seek comment on whether the complete elimination of the duty cycle restrictions contained in the Commission's Rules is appropriate under the circumstances presented.
- 17. We nonetheless believe that some form of relief from the duty cycle restrictions for base station and VLUs is needed in order to help offset system performance difficulties when Lojack operates in a dual wideband and narrowband mode pending its complete transition to a narrowband operation. A potential bottleneck for operation of LoJack's SVRS systems during the transition period appears to be in the operation of the base stations. During that transition period, both narrowband and wideband SVRS

<sup>&</sup>lt;sup>34</sup> *Id.* at 8-9.

<sup>&</sup>lt;sup>35</sup> See *id.* at 9.

<sup>&</sup>lt;sup>36</sup> See 47 C.F.R. § 90.20(e)(6).

<sup>&</sup>lt;sup>37</sup> See Petition at 9.

<sup>&</sup>lt;sup>38</sup> See Second SVRS Report and Order, 17 FCC Rcd at 16944-46 ¶¶ 14-16.

<sup>&</sup>lt;sup>39</sup> See Petition at 9. For example, LoJack indicates that the Commission's Rules concerning digital television (DTV) signal transmission show that DTV signals exhibit a greater ability to reject potentially interfering signals. See *id.* at 9-10 and Appendix B.

<sup>&</sup>lt;sup>40</sup> See First SVRS Report and Order, 4 FCC Rcd at 7561 ¶ 35.

systems will be operated from the same base stations. Accordingly, the base stations will be expected to handle twice the volume of transmissions of a single system. Hence, there is a need to increase the amount of time that the base stations may operate. In lieu of eliminating the duty cycle restrictions entirely, we propose to increase the duty cycle for SVRS base stations from one second for every minute, to five seconds for every minute. This would represent a 500 percent increase in the amount of time during which the SVRS base stations may operate. This five-fold increase in the duty cycle for base stations would provide significantly more time during which those stations may operate and, thus, should provide ample flexibility to accommodate operation of both narrowband and wideband SVRS systems without degrading the existing SVRS operations. We also propose to retain the five-second restriction for base stations after the transition period to narrowband operation is complete. We seek comment on our proposal to increase the base station duty cycle. We particularly seek comment with respect to the effect of an increased duty cycle on TV Channel 7 reception.

- 18. In addition, we propose to increase the duty cycle for narrowband VLUs from 200 milliseconds for every ten seconds to 400 milliseconds for every ten seconds. Correspondingly, we propose to increase the duty cycle for narrowbanded mobile transceivers that are being tracked actively from 200 milliseconds for every second to 400 milliseconds for every second. We believe this supplementary duty cycle for the mobile transceivers will improve the reliability of the SVRS system consistent with avoidance of interference to TV Channel 7 reception. We seek comment on the appropriateness of relaxing the duty cycle limits for mobile units.
- 19. <u>Channel 7 Interference Studies</u>. LoJack also requests that we eliminate the requirement for TV Channel 7 interference studies. LoJack argues that the studies are technically and financially onerous, with no demonstrable benefit. To support this request, LoJack asserts that during the twenty years that it has been required to conduct the studies, there have been no complaints of interference and no findings of perceptible interference to viewers of TV Channel 7. LoJack believes that, given the absence of predicted or reported interference, the requirement for TV Channel 7 interference studies should be eliminated. The channel 44
- 20. The Commission adopted the TV Channel 7 study requirement to minimize the potential for SVRS operations to cause interference to the reception of over-the-air TV Channel 7 transmissions. <sup>45</sup> Careful planning is required for the location of SVRS base stations in order to avoid their placement in locations where interference problems are likely to occur. This study requirement provides a means to identify specific locations where interference to over-the-air TV Channel 7 broadcasts is likely to occur from the operation of SVRS base stations. Given that the Commission has repeatedly said that the TV

<sup>45</sup> See First SVRS Report and Order, 4 FCC Rcd at 7560-61 ¶ 27.

<sup>&</sup>lt;sup>41</sup> Section 90.20(e)(6) of the Commission's Rules requires that, for each base station within 169 kilometers (105 miles) of a TV Channel 7 transmitter, the applicant must perform a technical analysis of potential interference to TV Channel 7 viewers. Such stations will be authorized if the applicant has limited the interference contour to fewer than one hundred residences; or if the applicant develops a plan to control any interference and agrees to make such adjustments in affected TV receivers as may be necessary. 47 C.F.R. § 90.20(e)(6).

<sup>&</sup>lt;sup>42</sup> See Petition at 11.

<sup>&</sup>lt;sup>43</sup> *Id.* at 11-12.

<sup>&</sup>lt;sup>44</sup> *Id*.

Channel 7 interference study requirement is an important part of "our overall strategy to avoid the occurrence of harmful interference," to does not appear that LoJack has submitted sufficient information that would justify the removal of the requirement. We note that none of the commenters responding to the Petition specifically addressed LoJack's request to eliminate the TV Channel 7 study requirement. While LoJack affirms its commitment to mitigating interference should it ever occur, we believe that the public interest is better served by minimizing the potential for interference prior to its occurrence, rather than afterwards. The TV Channel 7 study requirement appears to be a valuable regulatory resource that minimizes the potential for interference to over-the-air TV Channel 7 reception from SVRS operations. We are particularly concerned about interference to digital television reception. Interference to analog signals results in progressive degradation of the visual and aural signals as the interfering signal becomes stronger or the desired signal becomes weaker. In contrast, interference to a digital signal can result in the total loss of an otherwise excellent television picture. We invite comment on whether the TV Channel 7 study requirement should be eliminated, and on alternative measures that could be adopted to accomplish the same purpose.

Licensing Mobile Transceivers by Rule. SVRS operations have been of significant, but necessarily limited, benefit to the public because economic factors have precluded installation of a network of base stations that would provide ubiquitous SVRS coverage nationwide. LoJack proposes to leverage cellular technology to activate VLUs in an effort to overcome this limitation. Employing existing cellular infrastructure could make it possible for law enforcement authorities equipped with VTUs to activate, track, and deactivate VLUs in stolen vehicles in areas where there are no police base station licensees. Thus, LoJack requests that SVRS VLUs be "licensed by rule" in order to permit nationwide activation by mobile telephony transmissions. While we believe it is possible that SVRS operations could eventually be provided on a nationwide basis without modification of our current licensing approach, it may be more expeditious and efficient to permit hybrid licensing of SVRS systems by rule.

 $<sup>^{46}</sup>$  See, e.g., Second SVRS Report and Order, 17 FCC Rcd at 16944  $\P$  12, 16946  $\P$  15.

<sup>&</sup>lt;sup>47</sup> See Petition at 12.

 $<sup>^{48}</sup>$  See Second SVRS Report and Order, 17 FCC Rcd at 16946  $\P$  15.

<sup>&</sup>lt;sup>49</sup> *Cf.* Amendment of the Commission's Rules Concerning Maritime Communications, *Second Memorandum Opinion and Order and Fifth Report and Order*, PR Docket No. 92-257, 17 FCC Rcd 6685, 6705 ¶ 43 (2002) (declining to eliminate a similar engineering study requirement for Automated Maritime Telecommunications System stations).

<sup>&</sup>lt;sup>50</sup> See Petition at 6, 11.

<sup>&</sup>lt;sup>51</sup> *Id*.

<sup>&</sup>lt;sup>52</sup> LoJack also submits that cellular technology makes it possible, in states in which there is a police licensee, to activate a vehicle's VLU without having to transmit on the system's base station. *Id.* at 6.

<sup>&</sup>lt;sup>53</sup> *Id.* at 2.

- 22. SVRS mobile units are currently authorized under the base station license.<sup>54</sup> In other words, the base station licensee must obtain all required authorizations, including those necessary to operate mobiles on the system.<sup>55</sup> However, we recognize that there is precedent for authorizing radio operation by rule instead of by individual licensing.
- VLUs by rule. <sup>56</sup> Here, licensing SVRS mobile transceivers by rule seems practicable because it would permit rapid deployment of a system that could offer truly nationwide coverage by allowing the activation and deactivation of the units via the existing cellular telephone infrastructure. This would appear to greatly lessen the need to construct additional base stations to increase the coverage area of existing SVRS systems. We also note that the Commission previously adopted licensing by rule in the context of Radio Control Service, <sup>57</sup> the operation of which is similar SVRS, in that both involve transmitting nonvoice communications over short distances. <sup>58</sup> Would licensing mobile units by rule minimize regulatory burdens on both licensees and the Commission and, thus, facilitate deployment of SVRS operations? What need, if any, would be served by continuing to license SVRS mobiles under base station authorizations? Interested parties also should address whether a VLU notification or registration procedure would serve a useful administrative purpose. <sup>59</sup> Is such a procedure needed to provide a reliable indication of channel occupancy, or should the Commission utilize other regulatory approaches for spectrum management purposes (*e.g.*, equipment certification and/or operating rules)? Would some other method be preferable over notifying the Commission directly of VLU usage?
- 24. We also believe that compliance and related issues should be considered. Under our current rules, the base station licensee, normally the police department, ultimately is responsible for the proper operation of the SVRS system: the base stations, VTUs, and VLUs.<sup>60</sup> Under an authorization-by-

 $<sup>^{54}</sup>$  This is known as "system licensing." See Personal Emergency Locator Transmitter Service, Notice of Proposed Rule Making, PR Docket No. 89-599, 4 FCC Rcd 8657, 8659 ¶ 20 (1989).

<sup>&</sup>lt;sup>55</sup> See Amendment of Part 90 of the Commission's Rules Pertaining to End User and Mobile Licensing Information, *Notice of Proposed Rule Making*, PR Docket No. 92-78, 7 FCC Rcd 2877, 2878 ¶ 6 (1992).

<sup>&</sup>lt;sup>56</sup> No party commenting in response to the Petition addressed LoJack's proposal to authorize operations on frequency 173.075 MHz by rule.

<sup>&</sup>lt;sup>57</sup> See Elimination of Individual Station Licenses in Radio Control Radio Service and Citizens Band Radio Service, *Report and Order*, PR Docket No. 82-799, 48 Fed. Reg. 24884 (1983). *See generally* 47 C.F.R. Part 95, Subparts B, C, D, G, H, I, J, K; 47 U.S.C. § 307(e).

<sup>&</sup>lt;sup>58</sup> See Elimination of Individual Station Licenses in Radio Control Radio Service and Citizens Band Radio Service, *Report and Order*, PR Docket No. 82-799, 48 Fed. Reg. 24884, 24884 ¶ 3 (1983) (*R/C and CB Report and Order*).

<sup>&</sup>lt;sup>59</sup> We note that the Commission has adopted registration/notification requirements for some, but not most, Part 95 stations licensed by rule. *See*, *e.g.*, 47 C.F.R. §§ 95.1111 (requiring registration of Wireless Medical Telemetry Service devices with a designated frequency coordinator), 95.1402 (requiring registration of 406 MHz personal locator beacons with the National Oceanic and Atmospheric Administration).

 $<sup>^{60}</sup>$  See Amendment of Part 2 and 90 of the Commission's Rules to Provide for Stolen Vehicle Recovery Systems, Memorandum Opinion and Order, Gen. Docket No. 88-566, 6 FCC Rcd 622, 623  $\P$  10 (1991).

rule scheme, who will be responsible for ensuring compliant conduct of the mobile operations? Where there is no individual licensing, how will the Commission enforce its rules if a user of an SVRS mobile unit violates our regulations, as in the case of a malfunctioning mobile unit that causes interference? As noted above, SVRS licensees operate on a co-primary basis with Federal Government operations. Consequently, base stations must be coordinated with the Federal Government prior to licensing. Because the Federal Government is thus aware of what geographic areas will have SVRS operations on frequency 173.075 MHz, Federal Government users can plan their operations so as not to cause interference to, or incur interference from, SVRS transmissions. We do not propose to change our processes regarding coordination of base stations. If, however, VLUs can operate in areas without base stations under a licensing-by-rule scheme, such coordination is impracticable, and it is not clear how Federal Government users could avoid causing or incurring interference on this shared frequency. It therefore may be appropriate for licensed-by-rule operations to be authorized on a secondary basis to Federal Government operations. It also may be appropriate to license by rule only narrowband VLUs, in order to reduce the potential for such interference. We invite comment on all of these issues.

- 25. The Scope of Section 90.20(e)(6) Operations. Part 90 use of frequency 173.075 MHz is limited to the recovery of stolen vehicles; "general tracking and monitoring" has always been prohibited. LoJack seeks to permit additional services related to public safety, health and welfare, and national security, such as: (1) tracking stolen articles, such as cargo containers, automated teller machines, or hazardous material; (2) addressing user emergencies by providing automatic collision notification, medical emergency or vehicle fire notification, and carjacking alerts; (3) tracking missing or wanted persons; (4) locating people at risk (such as Alzheimer's patients or autistic children), or of interest to law enforcement officials (such as sex offenders, parolees, and individuals under house detention if established boundaries are violated); and (5) location on demand services authorized by public safety agencies. 4
- 26. We note LoJack's argument that expanding the permissible use of frequency 173.075 MHz beyond the recovery of stolen vehicles could serve the public interest. A principal purpose of Section 90.20(e)(6) of the Commission's Rules is to aid law enforcement, and it appears that SVRS operations can be put to additional uses in furtherance of that goal. We are concerned, however, by the breadth and vagueness of LoJack's proposed expansion of uses, as overuse of the frequency could result in spectrum congestion and interference to Federal Government operations sharing the frequency, as well as to television Channel 7 analog and digital reception. We seek comment on what particular additional uses of frequency 173.075 MHz should be authorized. Commenters should explain how such purposes aid law enforcement, and why such proposes cannot or should not be served via other means.

<sup>&</sup>lt;sup>61</sup> 47 C.F.R. § 90.20(e)(6).

<sup>&</sup>lt;sup>62</sup> See id.; see also 47 C.F.R. § 90.20(e)(6).

<sup>&</sup>lt;sup>63</sup> See Petition at 7. LoJack notes that eligibility to use the frequency would remain limited to public safety entities, and would not extend to concierge, convenience, or fleet management.

 $<sup>^{64}</sup>$  Id

<sup>&</sup>lt;sup>65</sup> See First SVRS Report and Order, 4 FCC Rcd at 7558 ¶ 7, 7559 ¶ 17, 7561 ¶ 31.

#### III. CONCLUSION

27. In summary, it would appear that the public interest would be served by permitting increased output power for SVRS mobile transceivers, allowing additional digital emission schemes for SVRS, and relaxing of the limitations on duty cycles for SVRS operations. In addition, it could be advantageous to license mobile transceivers by rule in order to aid the expeditious and efficient implementation of SVRS operations, and to broaden the scope of Section 90.20(e)(6) to permit expanded uses of frequency 173.075 MHz other than the recovery of stolen vehicles. We believe that such rule changes could enhance SVRS operations and assist in the migration of these communications to narrowband technology. We seek comment on LoJack's proposals as discussed above.

#### IV. PROCEDURAL MATTERS

## A. Regulatory Flexibility Act

28. Regulatory Flexibility Analysis. As required by the Regulatory Flexibility Act of 1980 (RFA),<sup>66</sup> the Commission has prepared an Initial Regulatory Flexibility Analysis (IRFA) of the possible significant economic impact on small entities of the policies and rules proposed in the NPRM. The analysis is found in Appendix A. We request written public comment on the analysis. Comments must be filed in accordance with the same filing deadlines for comments on the NPRM, and must have a separate and distinct heading designating them as responses to the IRFA. The Commission will send a copy of this NPRM, including the IRFA, to the Chief Counsel for Advocacy of the Small Business Administration.

## **B.** Paperwork Reduction Act

29. Paperwork Reduction Analysis. This NPRM does not contain proposed information collection(s) subject to the Paperwork Reduction Act of 1995, Public Law 104-13. In addition, therefore, it does not contain any new or modified "information collection burden for small business concerns with fewer than 25 employees," pursuant to the Small Business Paperwork Relief Act of 2002, Public Law 107-198, see 44 U.S.C. § 3506(c)(4).

#### C. Ex Parte Rules – Permit-But-Disclose Proceeding

30. Ex Parte Rules Presentations. This is a permit-but-disclose notice and comment rulemaking proceeding. Ex parte presentations are permitted, except during the Sunshine Agenda period, provided they are disclosed as provided in the Commission's Rules. See generally 47 C.F.R. §§ 1.1202, 1.1203, 1.1206(a).

#### D. Comment Period and Procedures

31. *Alternative formats*. To request materials in alternative formats for people with disabilities (Braille, large print, electronic files, audio format), send an e-mail to <<u>FCC504@fcc.gov</u>> or call the Consumer and Government Affairs Bureau at (202) 418-0530 (voice), (202) 418-0432 (TTY). This *NPRM* also may be downloaded from the Commission's web site at <<u>http://www.fcc.gov/</u>>.

<sup>&</sup>lt;sup>66</sup> 5 U.S.C. § 603.

- 32. Comment Dates. Pursuant to Sections 1.415 and 1.419 of the Commission's Rules, 47 C.F.R. §§ 1.415, 1.419, interested parties may file comments on or before [30 days after publication in the Federal Register] and reply comments on or before [45 days after publication in the Federal Register].
- 33. Commenters may file comments electronically using the Commission's Electronic Comment Filing System (ECFS), the Federal Government's eRulemaking Portal, or by filing paper copies. Commenters filing through the ECFS can be sent as an electronic file via the Internet to <a href="http://www.fcc.gov/e-file/ecfs.html">http://www.fcc.gov/e-file/ecfs.html</a>. If multiple docket or rulemaking numbers appear in the caption of this proceeding, filers must transmit one electronic copy for each docket or rulemaking number referenced in the caption. In completing the transmittal screen, commenters should include their full name, U.S. Postal Service mailing address, and the applicable docket or rulemaking number. Commenters may also submit an electronic comment by Internet e-mail. To get filing instructions for e-mail comments, commenters should send an e-mail to <a href="http://www.regulations.gov">ecfs@fcc.gov</a>, and should include the following words in the body of the message, "get form." Commenters will receive a sample form and directions in reply. Commenters filing through the Federal eRulemaking Portal <a href="http://www.regulations.gov">http://www.regulations.gov</a>, should follow the instructions provided on the website for submitting comments.
- 34. Commenters who chose to file paper comments must file an original and four copies of each comment. If more than one docket or rulemaking number appears in the caption of this proceeding, filers must submit two additional copies for each additional docket or rulemaking number. All filings must be sent to the Commission's Secretary, Office of the Secretary, Federal Communications Commission, 445 12<sup>th</sup> Street, S.W., Room TW-A325, Washington, D.C. 20554.
- 35. Commenters may send filings by hand or messenger delivery, by commercial overnight courier, or by first-class or overnight U.S. Postal Service mail. The Commission's contractor will receive hand-delivered or messenger-delivered paper filings for the Commission's Secretary at 236 Massachusetts Avenue, N.E., Suite 110, Washington, D.C. 20002. The filing hours at this location are 8:00 a.m. to 7:00 p.m. Commenters must bind all hand deliveries together with rubber bands or fasteners and must dispose of any envelopes before entering the building. This facility is the only location where the Commission's Secretary will accept hand-delivered or messenger-delivered paper filings. Commenters must send commercial overnight mail (other than U.S. Postal Service Express Mail and Priority Mail) to 9300 East Hampton Drive, Capitol Heights, MD 20743. Commenters should address U.S. Postal Service first-class mail, Express Mail, and Priority Mail to 445 12<sup>th</sup> Street, S.W., Washington, DC 20554.
- 36. Interested parties may view documents filed in this proceeding on the Commission's Electronic Comment Filing System (ECFS) using the following steps: (1) access ECFS at <a href="http://www.fcc.gov/cgb/ecfs">http://www.fcc.gov/cgb/ecfs</a>. (2) In the introductory screen, click on "Search for Filed Comments." (3) In the "Proceeding" box, enter the <a href="numerals">numerals</a> in the docket number. (4) Click on the box marked "Retrieve Document List". A link to each document is provided in the document list. Filings and comments are also available for public inspection and copying during regular business hours at the FCC Reference Information Center, 445 12<sup>th</sup> Street, S.W., Room CY-A257, Washington, DC, 20554. Filings and comments also may be purchased from the Commission's duplicating contractor, Best Copy and Printing, Inc., Portals II, 445 12<sup>th</sup> Street, SW, Room CY-B402, Washington, DC 20554, telephone 1-800-378-3160, or via e-mail <a href="https://www.bcpiweb.com">www.bcpiweb.com</a>.

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<sup>&</sup>lt;sup>67</sup> See Electronic Filing of Documents in Rulemaking Proceedings, Report and Order, 13 FCC Rcd 11322 (1998).

37. For further information, contact Mr. Rodney Conway, Public Safety and Critical Infrastructure Division, Wireless Telecommunications Bureau, (202) 418-2904 or TTY (202) 418-7233; or via e-mail at Rodney.Conway@fcc.gov.

#### E. Further Information

38. For further information concerning this proceeding, contact Rodney Conway, Rodney.Conway@fcc.gov, Public Safety and Critical Infrastructure Division, Wireless Telecommunications Bureau, at (202) 418-2904, or TTY (202) 418-7233.

#### V. ORDERING CLAUSES

- 39. Accordingly, IT IS ORDERED, that pursuant to Sections 4(i), 303(f) and (r), and 332 of the Communications Act of 1934, as amended, 47 U.S.C. §§ 154(i), 303(f), 303(r), 332, this *Notice of Proposed Rule Making* IS HEREBY ADOPTED.
- 40. IT IS FURTHER ORDERED THAT THE Commission's Consumer and Government Affairs Bureau, Reference Information Center, SHALL SEND a copy of this *Notice of Proposed Rule Making*, including the Initial Regulatory Flexibility Analysis, to the Chief Counsel for Advocacy of the Small Business Administration.

FEDERAL COMMUNICATIONS COMMISSION

Marlene H. Dortch Secretary

#### APPENDIX A

#### PROPOSED RULE CHANGES

Part 90 of Chapter 1 of Title 47 of the Code of Federal Regulations is proposed to be amended as follows:

1. The authority citation continues to read as follows:

Authority: Sections 4(i), 11, 303(g), 303(r) and 332(c)(7) of the Communications Act of 1934 as amended, 47 U.S.C. 154(i), 303(g), 303(r), and 332(c)(7).

2. Section 90.20 is amended by revising paragraph (e)(6) to read as follows:

§ 90.20 Public Safety Pool

\* \* \* \* \*

- (e) \* \* \* \* \*
- (6) The frequency 173.075 MHz is available for stolen vehicle recovery systems on a shared basis with the Federal Government
- (i) Base station transmitters are limited to 300 watts ERP, regardless of the maximum authorized bandwidth
- (ii) Mobile transmitters operating on this frequency with emissions authorized in a maximum bandwidth of 12.5 kHz are limited to 5.0 watts power output. Mobile transmitters operating on this frequency with emissions authorized in a maximum bandwidth of 20 kHz are limited to 2.5 watts power output.
- (iii) Any modulation scheme may be used.
- (iv) Transmissions from mobiles authorized to operate with a maximum bandwidth of 20 kHz shall be limited to 200 milliseconds for every 10 seconds, except when a vehicle is being tracked actively transmissions are limited to 200 milliseconds for every second; transmissions for mobiles authorized to operate with a maximum bandwidth of 12.5 kHz shall be limited to 400 milliseconds for every 10 seconds, except when a vehicle is being tracked actively transmissions are limited to 400 milliseconds for every second. Alternatively, transmissions from mobiles regardless of their maximum emission bandwidth shall be limited to 1800 milliseconds for every 300 seconds with a maximum of six such messages in any 30 minute period.
- (v) Transmissions from base stations shall be limited to a total rate of five seconds every minute regardless of the maximum authorized bandwidth.
- (vi) Applications for base stations operating on this frequency shall require coordination with the Federal Government. Applicants shall perform an analysis for each base station that is located within 169 km (105 miles) of a TV Channel 7 transmitter of potential interference to TV Channel 7 viewers. Such base stations will be authorized if the applicant has limited the interference contour to include fewer than 100 residences or if the applicant:
- (A) Shows that the proposed site is the only suitable location (which, at the application stage, requires a showing that the proposed site is especially well-suited to provide the proposed service);
  - (B) Develops a plan to control any interference caused to TV reception from operations; and

(C) Agrees to make such adjustments in the TV receivers affected as may be necessary to eliminate interference caused by its operations. The licensee must eliminate any interference caused by its operation to TV Channel 7 reception within 30 days after notification in writing by the Commission. If this interference is not removed within this 30-day period, operation of the base station must be discontinued. The licensee is expected to help resolve all complaints of interference.

\* \* \* \* \*

#### APPENDIX B

#### **Initial Regulatory Flexibility Analysis**

As required by the Regulatory Flexibility Act (RFA), <sup>68</sup> the Commission has prepared this present Initial Regulatory Flexibility Analysis (IRFA) of the possible significant economic impact on small entities by the policies and rules proposed in this *Notice of Proposed Rulemaking (NPRM)*. Written public comments are requested on this IRFA. Comments must be identified as responses to the IRFA and must be filed by the deadlines for comments on this *NPRM* provided in the item. The Commission will send a copy of the *NPRM*, including this IRFA, to the Chief Counsel for Advocacy of the Small Business Administration (SBA). <sup>69</sup> In addition, the *NPRM* and IRFA (or summaries thereof) will be published in the Federal Register. <sup>70</sup>

## A. Need for, and Objectives of, the Proposed Rules

The purpose of this *NPRM* is to determine whether it would be in the public interest, convenience and necessity to amend our rules governing the use of frequency 173.075 MHz for stolen vehicle recovery systems (SVRS). In the *NPRM*, we propose revising Section 90.20(e)(6) of the Commission's Rules to permit increased mobile power, analog and digital emissions, in addition to the F1D and F2D modulation schemes already permitted by the Commission, and relaxing the limitations on duty cycles. We also propose authorizing mobile transceivers by rule rather than by the current practice of licensing mobiles with individual base station authorizations. Finally, we inquire into the merits of broadening the scope of Section 90.20(e)(6) to permit the use of frequency 173.075 MHz for other than SVRS operations. These rule changes could enhance SVRS operations, assist SVRS facilities in their migration to narrowband technology, and aid in the expeditious and efficient implementation of SVRS operations, thus serving the public interest.

#### B. Legal Basis

Authority for issuance of this *NPRM* is contained in Sections 4(i), 303(r), and 332(a)(2) of the Communications Act of 1934, as amended, 47 U.S.C. §§ 154(i), 303(r), 332(a)(2).

# C. Description and Estimate of the Number of Small Entities to Which the Proposed Rules Will Apply

The RFA directs agencies to provide a description of and, where feasible, an estimate of the number of small entities that may be affected by the proposed rules, if adopted. Under the RFA, small entities may include small organizations, small businesses, and small governmental jurisdictions. The RFA generally defines "small business" as having the same meaning as "small business concern" under the Small Business

<sup>71</sup> 5 U.S.C. § 603(b)(3).

<sup>&</sup>lt;sup>68</sup> See 5 U.S.C. § 603. The RFA, see 5 U.S.C. § 601 et seq., has been amended by the Contract With America Advancement Act of 1996, Pub. L. No. 104-121, 110 Stat. 847 (1996) (CWAAA). Title II of the CWAAA is the Small Business Regulatory Enforcement Fairness Act of 1996 (SBREFA).

<sup>&</sup>lt;sup>69</sup> See 5 U.S.C. § 603(a).

<sup>&</sup>lt;sup>70</sup> See id.

<sup>&</sup>lt;sup>72</sup> 5 U.S.C. § 601(6).

Act.<sup>73</sup> A small business concern is one that: (1) is independently owned and operated; (2) is not dominant in its field of operation; and (3) satisfies any additional criteria established by the Small Business Administration (SBA).<sup>74</sup> A small organization is generally "any not-for-profit enterprise which is independently owned and operated and is not dominant in its field."

Nationwide, as of 1992, there were approximately 275,801 small organizations.<sup>76</sup> "Small governmental jurisdiction" generally means "governments of cities, counties, towns, townships, villages, school districts, or special districts, with a population of less than 50,000."<sup>77</sup> As of 1992, there were approximately 85,006 such jurisdictions in the United States.<sup>78</sup> This number includes 38,978 counties, cities, and towns; of these, 37,566, or ninety-six percent, have populations of fewer than 50,000.<sup>79</sup> The Census Bureau estimates that this ratio is approximately accurate for all governmental entities. Thus, of the 85,006 governmental entities, we estimate that 81,600 (ninety-one percent) are small entities.

The proposed rule amendments may affect users of Public Safety Radio Pool services and private radio licensees that are regulated under Part 90 of the Commission's Rules, and Federal Governmental entities. The proposals may also provide marketing opportunities for radio manufacturers, some of which may be small businesses. Beyond this we are unable to quantify the potential effects on small entities. We, therefore, invite specific comments on this point by interested parties.

Public Safety Radio Services and Governmental entities. As a general matter, Public Safety Radio Services include police, fire, local government, forestry conservation, highway maintenance, and emergency medical services. 80 Neither the Commission nor the SBA has developed a definition of small businesses

<sup>&</sup>lt;sup>73</sup> Compare 5 U.S.C. § 601(3) (RFA) with 15 U.S.C. § 632 (SBA).

<sup>&</sup>lt;sup>74</sup> Small Business Act, 5 U.S.C. § 632 (1996).

<sup>&</sup>lt;sup>75</sup> 5 U.S.C. § 601(4).

<sup>&</sup>lt;sup>76</sup> 1992 Economic Census, U.S. Bureau of the Census, Table 6 (special tabulation of data under contract to Office of Advocacy of the U.S. Small Business Administration).

<sup>&</sup>lt;sup>77</sup> 5 U.S.C. § 601(5).

<sup>&</sup>lt;sup>78</sup> U.S. Department of Commerce, Bureau of the Census, 1992 Census of Governments.

<sup>&</sup>lt;sup>79</sup> *Id*.

<sup>&</sup>lt;sup>80</sup> See subparts A and B of Part 90 of the Commission's Rules, 47 C.F.R. §§ 90.1-90.22. Police licensees include 26,608 licensees who serve state, county, and municipal enforcement officials through telephony (voice), telegraphy (code), and teletype and facsimile (printed material). Fire licensees include 22,677 licensees comprised of private volunteer or professional fire companies, as well as units under governmental control. Public Safety Radio Pool licensees include 40,512 licensees that are state, county, or municipal entities that use radio for official purposes. There are also 7,325 forestry service licensees comprised of licensees from state departments of conservation and from private forest organizations that set up communications networks among fire lookout towers and ground crews. The 9,480 state and local governments are highway maintenance licensees that provide emergency and routine communications to aid other public safety services to keep main roads safe for vehicular traffic. The 1,460 Emergency medical licensees use their channels for emergency medical service communications related to the delivery of emergency medical treatment. Another 19,478 licensees include persons or entities involved in medical services, rescue, disaster relief, emergency repair of public communications facilities, and veterinarians, handicapped persons, beach patrols, establishments in isolated areas, and communications standby facilities.

directed specifically toward public service licensees. Therefore, the applicable definition of small business is the definition under the SBA rules applicable to Cellular and other Wireless Telecommunications. This provides that a small business is a radiotelephone company employing no more than 1,500 persons. According to the Bureau of the Census, only twelve radiotelephone firms from a total of 1,178 such firms that operated during 1992 had 1,000 or more employees. Therefore, even if all twelve of these firms were public safety licensees, nearly all would be small businesses under the SBA's definition, if independently owned and operated.

Equipment Manufacturers. We anticipate that at least six radio equipment manufacturers could be affected by our decision in this proceeding. According to the SBA's regulations, a radio and television broadcasting and wireless communications equipment manufacturing businesses must have 750 or fewer employees in order to qualify as a small business concern. Census Bureau data indicate that there are 858 U.S. firms that manufacture radio and television broadcasting and communications equipment, and that 778 of these firms have fewer than 750 employees and would therefore be classified as small entities. We do not have information that indicates how many of the six radio equipment manufacturers associated with this proceeding are among these 778 firms. Motorola, however, is a major, nationwide radio equipment manufacturer, and thus, we conclude that it would not qualify as a small business.

#### D. Description of Projected Reporting, Recordkeeping, and Other Compliance Requirements

The *NPRM* neither proposes nor anticipates any additional reporting, recordkeeping or other compliance measures.

## E. Steps Taken to Minimize Significant Economic Impact on Small Entities, and Significant Alternatives Considered

The RFA requires an agency to describe any significant alternatives that it has considered in reaching its proposed approach, which may include the following four alternatives (among others): (1) the establishment of differing compliance or reporting requirements or timetables that take into account the resources available to small entities; (2) the clarification, consolidation, or simplification of compliance or reporting requirements under the rule for small entities; (3) the use of performance, rather than design, standards; and (4) an exemption from coverage of the rule, or any part thereof, for small entities.<sup>85</sup>

The *NPRM* solicits comment on various proposals set forth herein. For example, the Commission seeks comment on its proposal to authorize use of frequency 173.075 MHz by rule rather than by individual

<sup>82</sup> Economics and Statistics Administration, Bureau of Census, U.S. Department of Commerce, *1992 Census of Transportation, Communications and Utilities, Establishment and Firm Size, Series UC92-S-1*, at Table 5, SIC code 4812.

<sup>&</sup>lt;sup>81</sup> 13 C.F.R. § 121.201, NAICS code 513322.

<sup>&</sup>lt;sup>83</sup> 13 C.F.R. § 121.201, NAICS code 334220.

<sup>&</sup>lt;sup>84</sup> U.S. Department of Commerce, *1992 Census of Transportation, Communications and Utilities* (May 1995), SIC cat. 3663.

<sup>85 5</sup> U.S.C. §603(c).

licensing. These proposals are made to reduce the regulatory burden for SVRS licensees, most of whom are small police entities.

## F. Federal Rules that May Duplicate, Overlap, or Conflict with the Proposed Rules

None.

#### Appendix C

#### **List of Commenters**

Bayonne City Police (Bayonne)

Bergen County Police Department (Bergen County)

Bergen County Sheriff's Department (Bergen County Sheriff)

Bourne Police Department (Bourne)

Brick Township New Jersey Police (Brick Township)

Bridgewater Township New Jersey Police (Bridgewater Township)

Carlstadt Police Department (Carlstadt)

Carteret Police (Carteret)

Cinnaminson Township Police (Cinnaminson)

City of Chula Vista Police (Chula Vista)

City of Friendswood (Friendswood)

City of Hemet Police (Hemet)

City of Houston Police (Houston)

City of Lakewood Police (Lakewood)

City of Pasadena Police (Pasadena)

City of Plano (Plano)

City of Pomona Police (Pomona)

City of San Fernando Police Department (San Fernando)

City of Sierra Madre Police (Sierra Madre)

Cliffside Park Police (Cliffside Park)

Colorado Department of Public Safety (Colorado)

Denham Springs Police (Denham)

Delaware River Port Authority Police (Delaware River Port Authority)

Douglass County Sheriff's Office (Douglass)

East Hanover Township Police (East Hanover)

Eatontown Police Department (Eatontown)

Edison Police (Edison)

Fontana Police Department (Fontana)

Fort Bend County Sheriff's Office (Fort Bend)

Franklin Township Police (Franklin Township)

Galveston County Sheriff's Office (Galveston County

Galveston Police Department (Galveston)

Garland Police Department (Garland)

Georgia State Patrol (Georgia)

Glendale Police Department (Glendale)

Hallandale Beach Police Department (Hallandale Beach)

Harrison Police (Harrison)

Henderson Police Department (Henderson)

Jackson Township Police (Jackson Township)

Jersey City Police (Jersey City)

Lancaster Police (Lancaster)

LoJack Corporation (LoJack)

Livingston New Jersey Police (Livingston)

Madera Sheriff's Department (Madera)

Marlboro Township Police (Marlboro)

Medfield Police Department (Medfield)

Miami-Dade Police Department (Miami-Dade)

Millville New Jersey Police (Millville)

Monroe Township Police (Monroe)

Motorola, Inc. (Motorola)

Neptune City Police (Neptune)

North Miami Police Department (North Miami)

Pasadena Police (Pasadena)

Pennsauken Township Police (Pennsauken)

Piscataway Police (Piscataway)

Plainville Police Department (Plainville)

Raynham Police Department (Raynham)

Roseland Police (Roseland)

San Diego County Sheriff's Department (San Diego County)

Taft Police Department (Taft)

The Massachusetts Chiefs of Police

Town of Bourne Police (Braintree)

Town of Braintree (Braintree)

Town of Braintree Police Department (Braintree Police)

Town of Medfield (Medfield)

Town of Plainville Police (Plainville)

Town of Raynham (Raynham)

Town of Tuxedo (Tuxedo)

Town of Westford (Westford)

Village of Amityville Police Department (Amityville)

West Covina Police Department (West Covina)

Westford Police Department (Westford)

Westwego Police (Westwego)

Wheat Ridge Police (Wheat Ridge)